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# Parental Divorce, Adolescents' Feelings toward Parents and Drunkenness in Adolescents

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## Key Words

Drunkenness • Parental divorce • Adolescents

## Abstract

The aim of this study was to explore the association between parental divorce and adolescent drunkenness and the contribution of adolescents' feelings toward their parents to this association. Cross-sectional data on 3,694 elementary school students from several cities in Slovakia (mean age 14.3, 49.0% males; response rate 93%) were obtained. Respondents completed questionnaires on how often they had been drunk in the previous 4 weeks, whether their parents were divorced and a measure of their feelings toward their parents. Parental divorce was found to have an effect on adolescent drunkenness in the previous month, as were the high rates of negative and low rates of positive feelings toward both parents. The effect of divorce on drunkenness strongly decreased if adjusted for the affect of the adolescent toward the father, but not the mother. Our findings indicate that to keep the father positively involved after divorce might be a protective factor with regard to a higher probability of adolescent drunkenness in divorced families.

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## Introduction

Alcohol use, and in particular excessive drinking (usually resulting in drunkenness), is a relatively common behavior among adolescents and has become a major public health concern. According to the most recent Health Behavior in School-aged Children (HBSC) study [1], children from some countries start drinking alcohol at a relatively early age. Slovak children are an example of this: 9% of girls and 14% of boys at age 11 years reported drinking alcohol at least once a week, and this proportion increases with age. Most of the first experiences with alcohol take place at home as children are often provided with alcohol for the purposes of toasts on occasions such as family parties. The age of the first experience with drunkenness is also relatively low – at 15 years of age 31% of girls and 39% of boys have reported being drunk at least twice in their lives. In comparison, the average rates throughout all HBSC countries were 30% of girls and 37% of boys being drunk on at least two occasions. Slovakia also did not differ very much within the 'Visegrad countries', which are the nearest neighbors both geographically and culturally.

Drunkenness (i.e. drinking to intoxication) is a pattern of alcohol use that is particularly important in ado-

lence, and it seems to be correlated to other aspects of alcohol use such as frequency of drinking and the preference for spirits [2]. Among the wide range of factors that influence this risky pattern of alcohol consumption, the family environment is one of the most significant [3, 4]. The most important basic values, attitudes and patterns of behavior are formed in the family context. Many studies [3, 5–8] have found that living in an ever-divorced family increases the risk of adolescent alcohol use. This may be explained by several factors such as lowered parental control [9], worse socio-economic situation [10] and lower well-being [11]. Some studies have emphasized that the quality of a parent-adolescent relationship is likely to be influenced by parental divorce as well [12]. In particular, the quality of the relationship with the non-present parent is often very low [13], thus the greater risk of alcohol use in adolescents from ever-divorced families might also be partially explained through this dimension. The central role of the relationship between parent and adolescent regarding risk behavior has been emphasized in number of studies and theories (e.g. the attachment theory) [14, 15].

There are several methods for measuring the relationships between parents and their adolescent children. Asking adolescents about the feelings toward their parents is one of them. It is always preferable to measure feelings toward both parents, even if one of them is no longer present (for example, after divorce) [16]. A positive affect in this context is defined as the experience of warmth, support and acceptance and also involves the communication of positive feelings between the adolescent and the parent. A negative affect on the other hand is the experience of hostility, stress and rejection [17].

Based on theoretical and empirical findings, the aim of this study is to explore the association between parental divorce and adolescent drunkenness and the possible influence (mediation or modification) of adolescents' feelings toward parents on this association. We hypothesize that besides the separate effects of parental divorce and adolescent feelings toward parents, these factors may also interact together with regard the adolescent drunkenness.

## Methods

### *Study Sample*

The study sample consisted of 3,694 elementary school students (8th and 9th grades) from three cities in Slovakia-Bratislava (600,000 inhabitants, Western Slovakia), Zilina (156,000 inhabitants, Northern Slovakia) and Kosice (240,000 inhabitants, East-

ern Slovakia) – and several smaller towns (10,000–40,000 inhabitants) in the Kosice region. The schools and classes in each region were selected randomly from a database of schools from the Slovak Institute of School Information and Prognosis (81 schools in total; 2 classes per school; at average of 23 students per class). We asked the directors of the selected schools for participation, and after their approval and the approval of parents, data were collected.

The age of the participants ranged from 13 to 16 years, with a mean age of 14.3 years (SD 0.6). The study sample was fairly evenly divided by gender (49.0% males, 51.0% females). The regions were represented as follows: 24.6% of the participants lived in Bratislava, 21.3% in Zilina, 32.1% in Kosice and 22.0% in several smaller towns in the Kosice region. This is a good reflection of the distribution of these types of areas across Slovakia, so that the sample can be considered to be representative for this country. However, adolescents from small towns and rural areas were a little underrepresented in our sample. To determine whether this underrepresentation would affect our results, we separately assessed differences in the occurrence of drunkenness between adolescents from small towns and the remainder of our sample: these differences proved to be small and without statistical significance.

The response rate at the school level was 70%; schools that refused the participation were replaced by others from the database of schools from the Slovak Institute of School Information and Prognosis. The response rate within the participating classes was 93.0%, with nonresponse due primarily to illness or other type of absence.

### *Procedure and Measures*

Data were collected in October, November and December 2006 by a team of trained researchers and their assistants. Respondents filled in a questionnaire on a voluntary and anonymous basis without the presence of the teacher during two regular school lessons (45 min each). The following measures were used:

*Drunkenness in the Last Four Weeks.* Drunkenness in the last 4 weeks was assessed based on the self-evaluation of respondents (derived from HBSC surveys [1]). They were asked whether they had been drunk during the last four weeks, with the responses: no/1 to 2 times/3 or more times. Before analysis we dichotomized this question into: no/yes (at least 1 time).

*Parental Divorce.* Parental divorce was used as an indicator of family structure. It is quite common to combine the parental divorce measure with other measures of family structure. In our previous work [7], we also used an additional measure of family structure (family composition – whether the adolescent lives with one or two parents/step-parents), but it did not show any significant association with adolescent drunkenness. Therefore, we decided to use only the parental divorce measure in this study. Respondents were asked to answer the question of whether their (biological) parents are legally divorced, with the responses: no/yes, less than 12 months ago/yes, more than 12 months ago, but less than 3 years ago/yes, more than 3 years ago. A dichotomized variable was constructed for the analysis – no/yes (any period since divorce).

*Feelings toward Parents.* Adolescents' feelings toward their parents was assessed using the Perception of Parents Scale [16], a 15-item self-reported questionnaire measuring the adolescents' affectivity schema of their (biological) mother and father in two

dimensions for each parent (positive and negative affect). The advantage of this measure is that an adolescent's feelings toward parents are an indicator of the relationship, even if respondents are not in contact with either parent. The dimension 'positive affect' consists of questions on how often the respondent feels the following: respect toward the parent, happy when thinking about the parent, love toward the parent, grateful for the parent, proud of the parent, caring toward the parent, comforted when thinking about the parent, closeness toward the parent, appreciative (thankful) of the parent and positive feelings toward the parent. The dimension 'negative affect' consists of questions on how often the respondent feels the following: anger toward the parent, confused or puzzled by the parent, disappointed or let down by the parent, anxious or nervous about the parent, upset when thinking about the parent. A six-point Likert-type format was used ranging from not at all or never (1) to extremely or always (6). The range of sum scores was 10–60 for the positive affect dimensions and 5–30 for the negative affect dimensions, with a higher score indicating a higher level for each dimension. For the purpose of the analyses in this particular study all dimensions were Z-standardized. Cronbach's alpha coefficient was 0.89 for the positive affect to the mother dimension and 0.72 for the negative affect and was 0.92 for the positive affect to father dimension and 0.73 for the negative affect. The positive and the negative affect to each parent were significantly correlated (father: 0.29; mother: 0.18), and even strongest correlations were found between the positive affects toward the mother and toward the father (0.56) and between the negative affects toward the mother and toward the father (0.66).

All measures used in this study underwent the process of translation and back-translation from English to the Slovak language and reversely to ensure that language versions used in this study measure the same constructs as the original language versions.

#### Statistical Analysis

All data were analyzed using SPSS, version 16. In the first step standard descriptive analyses were performed to assess the characteristics of the sample. Next, t tests were used to compare adolescents from ever-divorced and not-divorced families in their feelings toward parents (table 1). Before performing the regression analyses, correlations between the subscales of the Perception of Parents Scale were explored.

We then performed a binary logistic regression to analyze the association between adolescent drunkenness in the previous month and parental divorce and feelings toward mother leading to odds ratios with associated 95% confidence intervals (table 2). Running analyses separately for boys and girls did not change the strengths of the associations, only influenced the significance levels, due to the smaller sample sizes per gender and, therefore, gender was added only as a control variable, together with age. Three models controlled for age and gender were constructed: in the first model we analyzed the effect of parental divorce as an independent variable. In the second model, the dimensions of positive and negative affect towards the mother were added to assess whether this would lead to a decrease of the odds ratios for divorce on drunkenness. If present, this could be indicative of a mediating effect of the affect toward the parent on that association. To explore whether there is a modification effect of the affect toward the father on the association between divorce and drunkenness,

**Table 1.** Level of positive and negative affect of adolescents towards each parent by parental divorce

	Divorced (n = 746)		Not divorced (n = 2,948)		p value
	mean	SD	mean	SD	
Positive affect to mother	46.0	11.2	46.3	9.6	n.s.*
Negative affect to mother	12.8	5.3	12.1	5.03	<0.001*
Positive affect to father	37.8	14.9	44.6	10.8	<0.001*
Negative affect to father	14.1	5.8	12.6	5.3	<0.01*
Drunk	25.1%		16.5%		<0.001**

\* t test; \*\*  $\chi^2$  test.

the interactions between parental divorce and positive and negative affect toward the mother were added into the third model. In the last step, we performed the same analyses for feelings toward the father (table 3).

The share of missing values was approximately 20% and they were dealt with by using list-wise procedure in further analyses.

## Results

A description of the sample and its characteristics can be found in table 1. Adolescents from divorced families (n = 746) differed in the level of positive and negative affects to parents from those from not-divorced (n = 2948); except for the dimension of positive affect of mother, these differences are significant. Also, drunkenness is more likely among those from divorced when compared to those from not-divorced families. The correlation analyses showed that the positive and the negative affect to each parent was significantly correlated (father: 0.29, mother: 0.18), and even stronger correlations were found between the positive affects toward the mother and toward the father (0.56) and between the negative affects toward the mother and toward the father (0.66).

Table 2 shows the results of the logistic regression analysis for the association of parental divorce and positive/negative affect to the mother with drunkenness in the last 4 weeks, controlled for gender and age. The first model assessed the effect of parental divorce – it was found to be associated with drunkenness: parental divorce increases the probability of drunkenness among adolescents. Moreover, a significant effect of age was found – higher age increases the probability of drunkenness. In the next model, we assessed the joint effects of parental divorce and two dimensions of the affect to-

**Table 2.** Binary logistic regression estimates for the effect on drunkenness in the last four weeks of gender, age, parental divorce, positive and negative affects toward mother and interactions between affects toward mother with parental divorce

	Drunkenness in the last 4 weeks, OR (95% CI)		
	model 1	model 2	model 3
Gender	1.18 (0.97–1.43) <sup>n.s.</sup>	1.15 (0.95–1.40) <sup>n.s.</sup>	1.15 (0.94–1.40) <sup>n.s.</sup>
Age	1.74 (1.49–2.04) <sup>***</sup>	1.71 (1.46–2.00) <sup>***</sup>	1.71 (1.46–2.00) <sup>***</sup>
Divorce <sup>#</sup>	1.81 (1.45–2.25) <sup>***</sup>	1.75 (1.40–2.19) <sup>***</sup>	1.81 (1.45–2.27) <sup>***</sup>
Positive affect toward mother		0.82 (0.75–0.91) <sup>***</sup>	0.79 (0.71–0.89) <sup>***</sup>
Negative affect toward mother		1.19 (1.08–1.31) <sup>***</sup>	1.24 (1.10–1.39) <sup>***</sup>
Divorce* positive affect toward mother			1.11 (0.91–1.37) <sup>n.s.</sup>
Divorce* negative affect toward mother			0.87 (0.70–1.09) <sup>n.s.</sup>

\*\*\* p < 0.001; n.s. = not significant; <sup>#</sup>reference category: not divorced. Nagelkerkes' R<sup>2</sup> ranged between 0.046 and 0.067 from model 1 to model 3.

**Table 3.** Binary logistic regression estimates for the effect on drunkenness in the last four weeks of gender, age, parental divorce, positive and negative affects toward father and interactions between affects toward father with parental divorce

	Drunkenness in the last 4 weeks, OR (95% CI)		
	model 1	model 2	model 3
Gender	1.16 (0.95–1.42) <sup>n.s.</sup>	1.20 (0.97–1.46) <sup>n.s.</sup>	1.18 (0.96–1.45) <sup>n.s.</sup>
Age	1.78 (1.51–2.10) <sup>***</sup>	1.72 (1.45–2.03) <sup>***</sup>	1.72 (1.45–2.03) <sup>***</sup>
Divorce <sup>#</sup>	1.53 (1.19–1.95) <sup>***</sup>	1.32 (1.02–1.70) <sup>*</sup>	1.34 (1.02–1.75) <sup>*</sup>
Positive affect toward father		0.85 (0.77–0.95) <sup>**</sup>	0.87 (0.77–0.99) <sup>*</sup>
Negative affect toward father		1.21 (1.09–1.34) <sup>***</sup>	1.26 (1.12–1.42) <sup>***</sup>
Divorce* positive affect toward father			0.94 (0.75–1.17) <sup>n.s.</sup>
Divorce* negative affect toward father			0.85 (0.67–1.09) <sup>n.s.</sup>

\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001; n.s. = not significant; <sup>#</sup>reference category: not divorced. Nagelkerkes' R<sup>2</sup> ranged between 0.039 and 0.058 from model 1 to model 3.

ward the mother. Both positive and negative affect were associated with drunkenness but their introduction into the model hardly affected the association between parental divorce and drunkenness. A significant effect of age was found. In the last model we added the interactions between divorce and positive and negative affect toward the mother. The significant effect of age, parental divorce and of positive and negative affects remained and no modification effect of the affect toward the mother was found (no significant interactions were found).

Table 3 shows the results of the logistic regression analyses for the associations of parental divorce and positive and negative affect toward the father with drunkenness in the last four weeks. The first model is identical

with the one in table 2 – parental divorce and higher age increase the probability of drunkenness among adolescents. In the next model we assessed the joint effects of parental divorce and the two dimensions of affect to father. Both positive and negative affect were found to be associated with drunkenness. This led to a more than halving of the association of parental divorce with adolescents' drunkenness. The effect of age remained significant. In the last model the interactions were added – the significant effects of age, parental divorce and of positive and negative affects remained and no modification effect of the affect toward the mother was found (no significant interactions were found).



## Discussion

The current study explored the associations of parental divorce and feelings toward parents with drunkenness in the last 4 weeks among adolescents. Living in an ever-divorced family increased the risk of drunkenness among adolescents. The same holds for the high rates of negative and low rates of positive feelings toward both parents. Regarding affect toward the mother, both associations seem to be independent from one another, but the association of parental divorce with adolescents' drunkenness decreased if adjusted for the affect of the adolescent toward the father. Finally, parental divorce and affect toward each parent did not modify each other's effects. Adolescents' feelings toward their parents were strongly associated with the probability of drunkenness. However, feelings toward parents only affected the relationship between parental divorce and adolescent drunkenness in the case of the father, but not of the mother. And even when adjusted for the affect towards both the father and the mother, parental divorce still increased the probability of drunkenness among their adolescent children.

Our finding regarding the association of parental divorce with recent drunkenness in adolescents confirms those of several other studies which explored the effect of divorce or family structure on substance use [7, 8, 18, 19]. This association might have several explanations. First, it might be related to lower parental control after divorce, as the majority of adolescents of divorced parents live with one parent only (nearly 60% in our sample; with various amount of time spent with the other parent). This single parent then has to perform the functions of both parents, which may result in a decrease of the control over adolescent behavior. Second, it might be explained by the poorer well-being of adolescents in such families, as parental divorce often represents a stressful experience in adolescent life (e.g. inter-parental conflict, moving, less nurturing) [20]. In both possible pathways, a positive relationship with parents might buffer against the undesirable consequences of divorce, but our results show that this only applies to the father. A third possible pathway of the association of parental divorce with adolescent drunkenness might be the socioeconomic position of the family after the divorce. However, although socioeconomic position of the family is associated with adolescent drunkenness, it has hardly weakened the association between parental divorce and adolescent drunkenness [7].

Another possible explanation for the fact that adolescent children of divorced parents report drunkenness more often might be the worsened relationship with par-

ents after divorce. Our results confirm this assumption only partially – we found that the association of drunkenness with parental divorce largely decreases if adjusted for affect toward the father, which can be interpreted as a mediating effect of the latter. An explanation could be that after divorce children more frequently live with their mother than with their father [21]. The quality of the relationship with the nonresident father is very often poor. It is influenced by several aspects, such as the frequency of contact with him or the quality of the post-divorce relationship between the parents, but also economic support from the father [13]. As we already mentioned in the Introduction, the negative effect of divorce on adolescent's behavior, including alcohol use, might be enhanced by this low quality of the adolescent-father relationship. This means that keeping the father positively involved after divorce might be a protective factor with regard to the higher probability of adolescent drunkenness in divorced families.

### *Strengths and Limitations*

The present study has several strengths and limitations. A first strength is the size of study sample and its representativeness for the regions of Slovakia. Selection bias was unlikely due to the way the sample was drawn and the high response rate (93%). A main limitation of our study is that it relied on the self-report of respondents. However, the questionnaires were filled out anonymously, which has been shown to lead to rather valid self-reports [22]. Moreover, adolescents from small towns and rural areas were somewhat underrepresented in our sample. However, the prevalence rates of drunkenness between the adolescents concerned and the remainder of our sample were similar, which makes it rather unlikely that this factor would affect our findings. Another limitation of the study is the lack of sociodemographic data, which would enable to frame the findings in a broader context.

## Conclusion

Our findings show that one of the possible pathways of the association between parental divorce and adolescent drunkenness might be the relationship with the father. It should be realized, though, that this conclusion requires confirmation in longitudinal research that provides conclusive evidence on the causal chains. In contemporary society, this issue may have major public health implications: both the proportion of marriages ending in divorce and the rates of excessive alcohol drink-

ing among adolescents are increasing. Our results show that adolescents from divorced families are at higher risk of drunkenness, as are those who report to have more negative feelings toward parents, in particular fathers. This means that adolescent children of divorced parents as well as their parents should thus be a particular target group in prevention, offering an important route for obtaining gains in adolescents' health.

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